

Date: Mon, 16 May 94 04:30:14 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V94 #131
To: Ham-Homebrew

Ham-Homebrew Digest Mon, 16 May 94 Volume 94 : Issue 131

Today's Topics:

 Philips "Dream Machine" 8XC750 design contest
 professional radio communications
 VHF to UHF - Best design ?
 What are these chips?

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 16 May 1994 00:56:11 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!MathWorks.Com!
news.kei.com!ssd.intel.com!chnews!cmoore@network.ucsd.edu
Subject: Philips "Dream Machine" 8XC750 design contest
To: ham-homebrew@ucsd.edu

David Billsbrough (kc4zvw@stardust.oau.org) wrote:

: I received my development kit yesterday and am impressed with the contents.
: While it comes with a debugger, I wonder if any assembler or compiler for
: the 80C51 could be used with it?
: David Billsbrough kc4zvw@stardust.oau.org

I have used the Frankenstein 8051 assembler and it does a good job. I'm
sure the debugger will work with the file.hex output. See the 8051.FAQ
for availability of public domain assemblers. Haven't heard of a public
domain compiler yet.

73, KG7BK, CecilMoore@delphi.com

Date: Mon, 16 May 1994 01:28:34 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!newshub.nosc.mil!news!martinb@network.ucsd.edu
Subject: professional radio communications
To: ham-homebrew@ucsd.edu

Professional Radio Communications Internet Mailing List

RadioCommNet is a mailing list for professionals in the radio communications industry: working engineers, academic faculty, and students. Topics include: propagation, antenna design, circuit design, modulation techniques, coding techniques, and so forth.

This mailing list is for topics of professional interest only. Hobby-related topics should remain on the rec.radio.amateur.* newsgroups.

The message volume is presently rather low, and so your mailbox will not be filled up with messages in which you have no interest. The signal/noise has been quite high.

We have about 180 members from over a dozen countries. If you would like your name to be added, please send me a message. Please include some information about your occupation: company/university, function, and "what you do."

Brett F. Martin
Naval Command, Control, and Ocean Surveillance Center
RDT&E Division
San Diego CA

email: martinb@cod.nosc.mil

NOTE: My address is "martinb" rather than "martin"

Date: 16 May 1994 08:41:21 GMT
From: ihnp4.ucsd.edu!usc!math.ohio-state.edu!jussieu.fr!univ-lyon1.fr!
elendir@network.ucsd.edu
Subject: VHF to UHF - Best design ?
To: ham-homebrew@ucsd.edu

Hello again,

I'm still involved in that multimode VHF/UHF TRX. To actually translate VHF to UHF, I thought about a threefold frequency multiplier in series with the VCO. Then mixing. So, if you don't activate the x3, you get VHF and if you do you get UHF.

But there is also the solution of generating VHF anyway then translating with a ~290 MHz carrier to get UHF. (Simplifies filtering)

Which solution, according to you, is best ?

Also, is it possible to find sharp filters for the 2 m and 70 cm band ?

Thanks and 73,
Vince - F1RCS.

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ENST - Ecole Nationale Supérieure des Telecommunications, Paris, France

Date: 16 May 94 06:38:12 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!psgrain!nntp.cs.ubc.ca!unixg.ubc.ca!
unixg.ubc.ca!bnowak@network.ucsd.edu
Subject: What are these chips?
To: ham-homebrew@ucsd.edu

>I have about 40 or so old circuit boards with some socketed chips that I
>was wondering what they might be good for. Can anyone can give me a
>brief functional description of these chips? I presume they are coming
>from something like a mainframe modem. If so, it would be nice to build
>some ham modems if possible, or perhaps a PC controlled antenna for
>tracking satellites. Or are they destined to be a very small boat
>anchor? I hate to throw them away, I am sure they would like to do some
>more digital work.

>[1] AM2910BPC - 40 pin - 3 of these on each board.
> 8405DM

>[2] AM2910DC - 40 pin - One of these, is this the same as the
> 8345DM prior chip [1]? Is the 8345DM just a date?

>[3] Z80A CPU - 40 pin - I know this is a Z80? What is a good
> source of playing with this chip?

>[4] N82S147N - 20 pin - 5 per board. with these additional
> second line numbers: D1N 48 REV A
> D0N 48 REV A

```

>
>
>
HP0N48 R A
HP1N48 R A
HP2N48 REV.A

```

```

>[5] MB7124E      - 20 pin - 1 per board
>   HP3N48RA

```

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>[6] TMS          - 24 pin - See through window on top
>   2516JL-35
>   MFP8401

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>There are also a gadzillion soldered chips on the boards. Mostly 74
>series hex inverters, gates, etc. which I do have info on from the TLL
>cookbook. What is a good way to remove these guys if I wanted to?

This may be a little hard to believe, but I use a propane soldering torch; yes
torch not an iron. Actually a heat gun is better but a torch will suffice.
I have use this method to remove thousands of ics, and other components
from PC boards and have about and 60-70 % success rate.

Method :

drill holes in board along edges, preferably in the corners.
place board on to a jig that you have made from metal (what ever kind
that you can work with) . details on this jig will be explained later.

run torch flame along the back side (solder side) of board slowly and
steadily (try to heat the board up gradually at first, to avoid stressing
the part).

at the same time vibrate the hell out of the board. my jig has a motor
with a cam attached to it that does this for me.

chips and components fall off the other side like mad. Even smt parts if
you are carefull .

the JIG:

```

      <|                                     |>  <- Hinge this end to base.
      +-----:--|| <- ready rod file threads off one end
flat bar |                                     |   and weld a washer on the end so it will
      o                                     o   turn in the rail but wont pull through
      |                                     |   hole in the rail .Weld nut onto rail,
      |                                     |   and nut onto end of the rod.
      |   PCB goes between |
      |   rails on 4 studs |
      |                                     |
      o                                     o <- studs hold pcb in place when being

```

```

|                                     | vibrated (just a screw or something).
|                                     |
+-----:--|| <- same as above. tighten two nuts and
|                                     | pcb gets squeezed between rails.
|=====|
          #####__0 <- motor with cam.
          #####

```

Hope this can help, it works ok for me.

>What is a good source to find info on these chips?

>Tom Dengler - KE4IRV

>denglet1@iia.org

> * SLMR 2.1a *

>

--

73

de VE7QBN

Brad Nowak

End of Ham-Homebrew Digest V94 #131
